AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

Claim 1 (Currently Amended): ~~A~~ An isolated salt-tolerant L-myo-inositol ~~1-phosphate~~1- phosphate synthase from *Porteresia coarctata* (PINO1) the nucleotide sequences and the deduced amino acid sequence as given below (A)

A. Nucleotide and deduced aminoacid sequence of PINO1:

atg ttc atc gag agc ttc cgc gtg gag agc ccg cac gtg cgg tac ggc gcg gcg gag atc

M F I E S F R V E S P H V R Y G A A E I

gag tcg gag tac cgg tac gac act acg gag ctg gtg cac gag agc cac gac ggc gcc tcg

E S W Y R Y D T T E L V H E S H D G A S

cgc tgg gtc gtc cgc ccc aag tcc gtc cag tac cac ttc agg acc agc acc acc gtc ccc

R H V V R P K S V Q Y H F R T S T T V P

aag ctc ggg gtc atg ctc gtg ggg tgg ggc ggc aac aac ggc tca acg ctg acg gct ggg

K L G V M L V G W G G N H G S T L T A G

gtc atc gcc agc agg gag gga atc tca tgg gcg acc aag gac aag gtg cag caa gcc aac

V I A S R E G I S W A T K D K V Q Q A N

tac tat ggc tca ctc acc cag gcg tcc acc atc agg gta gga agc tac aac ggg gag gag

Y Y G S L T Q A S T I R V G S Y N G E E

atc tac gcg cct ttc aag agc ctc ctg ccc atg gtg aac cct gat gac ctt gtg ttc ggg

I Y A P F K S L L P M V N P D D L V F G

ggc tgg gac att agc aac atg aac ctg gct gat gct atg acc agg gcc aag gtg ctg gac

G W D I S N M N L A D A M T R A K V L D

att gat ctg cag aag cag ctt agg cct tac atg gag tcc tgg tgc ctc tcc ctg gca tct

I D L Q K Q L R P Y M E S W C L A L A S

atg atc ccg act tca tcg ccg cta acc agg gat ccc gcg cga aca atg tca tca agg gaa

M I P T S S P L T R D P A R T M S S R E

cca aga agg agc aga tgg ggc aga tca tca aag gac atc agg gag ttc aag gaa aat aac

P R R S R W G R S S K D I R E F K E N N

aaa atg gac aag gcg gtg gtg ttg tgg act gca aac act gaa agg tac aac aat tgt ctg

K M D K A V V L N T A N T E R Y N N C L

tgt ttg ggc tta atg acc aat gga aaa cct tct gcg tct gtg gac agg aac cag gcg gag

C L G L M T N G K P S A S V D R S Q A E

ata tcg cca tcg aca ttg tat tgc cat tgc ctt gct tca ttg gag ggt gtc cgt tca ata

I S P S T L Y C H C L A S L E G V R S I

acg gga gcc ctt aaa aaa aaa tct tgg cct gga att gac gat ctt gcc att aaa aaa aaa

T G A L K K K S W P G I D D L A I K K K

ctg cct gat ccg ggg gga tta att caa aaa agg ggc aaa cca aaa aaa aaa acc ggc ttg

L P D P G G L I Q K R G K P K K K T G L

gtt gat ttc ctc atg ggt gct gga ata aag ccc acc tca att gtc agt tac aac cac ttg

V D F L M G A G I K P T S I V S Y N H L

ggg aat aat gat ggc acg aac ctt tct gcg ccg caa aca ttc cga tcc aag gag atc tcc

G N N D G T N L S A P Q T F R S K E I S

aaa agc agc gtg gtc gat gac atg gtc tca agc aat gct atc ctc tac gag cct ggc gag

K S S V V D D M V S S N A I L Y E P G E

cat cct gat cat gtt gtc gtg att aag tat gtg ccg tac gtc gga gac agc aag agg gcc

H P D H V V V I K Y V O Y V G D S K R A

atg gat gag tac acc tca gag atc ttc atg ggg ggt aag aac acc atc gtg ctg cac aac

M D E Y T S E I F M G G K M T I V L H N

acc tgc gag gac tcg ctc ctt gct gca cca atc att ctt gac ctg gtg ctc ctg gcc gag

T C E D S L L A A P I I L D L V L L A E

ctc agc act agg att cag ctg aaa ggc gag gga gag gag aaa ttc cat tcc ttc cat cca

L S T R I Q L K G E G E E K F H S F H P

gtg gct acc atc ctg agc tac ctc acc aag gcg ccc ctt gtt cct cct ggc aca cca gtg

V A T I L S Y L T K A P L V P P G T P V

gtg aac gcc ctg gcg aag cag agg gct atg ctc gag aac atc atg agg gcc tgc gtt ggg

V N A L A K Q R A M L E N I M R A C V G

ctg gcc cct gag aac aac atg atc ctg gag tac aag

L A P E N N M I L E Y K.

Claim 2 (Currently Amended): The DNA sequence coding as claimed in claim 1 wherein the nucleotide sequences of PINO1 ~~comprises of~~ further codes for two additional amino acids resulting in a protein bearing 512 amino acids ~~in comparison with RINO1, the L-myo-inositol 1-phosphate synthase from cultivated rice~~.

Claim 3 (Currently Amended): A process of obtaining cDNA, encoding a salt-tolerant L-myo-inositol 1-phosphate synthase ~~gene~~ comprising:

(i) isolation of a full-length cDNA for the L-myo-inositol 1-phosphate synthase gene from the leaf of Porteresia coarctata by reverse transcription followed by polymerase chain reaction; and

(ii) sequenceing of the isolated L-myo-inositol 1-phosphate synthase gene.

Claim 4 (Currently Amended): ~~A~~ The process as claimed in claim 3, wherein the isolated full-length cDNA of PINO1 is cloned into a suitable bacterial expression vector pET 20B(+) to produce expression plasmids.

Claim 5 (Currently Amended): ~~A~~ The process as claimed in claim 4, wherein ~~the~~ said plasmids ~~were~~ are introduced into the host strain E. coli BL-21 (DE 3) for obtaining an expressed PINO1 gene product.

Claim 6 (Currently Amended): ~~A~~ The process as claimed in claim 5, wherein the expressed PINO1 proteins are solubilized in a solubilization buffer containing 8M Urea, 0.5 M NaCl, 20 mM Tris-HCl, pH 7.5,10 mM ME and 2 mM PMSF.